GAS PHASE HYDROGENATION
OF O-XYLENE OVER
SUPPORTED Pt/Al₂O₃ CATALYST

By
Wael Isma'el Abu-Tuaimeh

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Approved

Dr. Riyadh A. Saymeh
(Adviser and Chairman)

Dr. Deeb Marji
(Co-adviser and Member)

Dr. Mohammed M. Qudah
(Member)

Dr. Khamis Abbas
(Member)

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ABSTRACT

Gas phase hydrogenation reaction of o-xylene was studied over Pt/Al₂O₃ Catalyst. The catalytic activity and selectivity were measured at different, reaction temperatures, catalyst weights and at different metal dispersions. The apparent activation energy was found to be 67±15 KJ/mol.

The metal dispersion changed through changing the catalyst pretreatment temperatures. The selectivity toward the trans-1,2-dimethylcyclohexane increases with the increase of metal dispersion, and this behavior is explained by the "roll-over" mechanism.